

# **BACTERIOLOGY PROFICIENCY TESTING PROGRAM**

## **General Category**

**April 28, 2009**

This report summarizes the results of the proficiency test administered April 28, 2009 to laboratories in the General Bacteriology category.

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# ***Bacteriology Proficiency Testing Program***

## ***GENERAL INFORMATION***

**The Bacteriology Proficiency Testing Program.** Three proficiency testing events are given annually, each consisting of a minimum of five specimens. In order to successfully complete a test event, participating laboratories must achieve a score of 80% or greater. Unsuccessful performance in the testing program is defined as a score of less than 80% on two of three consecutive test events.

**Authentication.** The presence and identity of the organism(s) in each specimen must be confirmed by at least 80% of the referee or participating laboratories. Referee laboratories are selected from New York State participating laboratories (located throughout the State) with acceptable and reproducible levels of performance. Samples are subjected to extensive quality control testing in our laboratory during preparation and storage.

**Grading System.** Laboratories are to process proficiency test specimens in the same manner as patient specimens. Thus, laboratories are responsible for identifying test isolates to the same level as performed on patient isolates. If your laboratory speciates an organism on special request, then you must also speciate it in the proficiency test; consider speciation to have been requested on all reportable isolates. In addition, laboratories are not responsible for culturing any test samples from specimen sources which they do not process. Information regarding your laboratory's reporting protocol was provided to us in the questionnaire previously distributed to all laboratories. Any changes in reporting protocol must be received by our office prior to the mailout date for proficiency testing for that information to be considered in grading.

Our testing format is in compliance with Health Care Financing Administration, Center for Medicare and Medicaid Services (HCFA CMS) guidelines as specified in the regulations of CLIA '88. One-half of our samples require identification of all organisms present. The other half requires that only the pathogenic organism(s) be reported. We recognize the potential for any organism to be pathogenic depending on the clinical condition of the patient. However, our samples are designed so that only well-established pathogens should be reported.

Tests are graded in strict adherence to HCFA CMS guidelines, as specified in the regulations of CLIA '88. Each of the specimens receives a score as determined by the following formula:

$$(a + b)/(c + d + e) \times 100\%$$

a = # correct identifications

b = # correct antibiotic susceptibility results (if applicable)

c = # possible identifications

d = # possible antibiotic susceptibility results (if applicable)

e = # additional organisms reported

Grades for each sample are then averaged to determine the final grade for this testing event. The minimum passing grade for each test event is 80%.

#### Disclaimer

The use of brand and/or trade names in this report does not constitute an endorsement of the products on the part of the Wadsworth Center or the New York State Department of Health.

**APRIL 28, 2009 TEST EVENT**

**Number of Participating Laboratories:**

**Receiving specimens 206**

**Returning results 205 (99.5%)**

Grade Distribution		
Score	Number	Percent
100%	141	69
90 – 99%	41	20
80 – 89%	17	8
70 – 79%	5	2
<70%	2	1

**BACTERIOLOGY - GENERAL**  
**APRIL 28, 2009**  
**ANSWER KEY**

**Specimen No. 1 - Stool (Pathogens Only)**

*Yersinia enterocolitica*

**Specimen No. 2 – Cerebrospinal fluid (All Organisms)**

*Haemophilus parainfluenzae*

**Specimen No. 3 – Blood - Aerobic / Anaerobic (All Organisms)**

*Bacteroides fragilis*

*Moraxella catarrhalis*

**Specimen No. 4 – Urine (Pathogens Only) and Antibiotic Susceptibility**

*Pseudomonas aeruginosa*

Susceptibility of *P. aeruginosa* to: Imipenem - Susceptible  
Norfloxacin - Susceptible

**Specimen No. 5 – Cervix (Pathogens Only)**

*Neisseria gonorrhoeae*

***Chlamydia* Direct Detection - Cervix**

Positive for *Chlamydia trachomatis*

**A – Group A *Streptococcus* Direct Antigen Detection - Throat**

Positive for Group A *Streptococcus*

## REFEREE LABORATORY RESULTS

<b>Specimen Number</b>	<b>Referee Laboratory Responses</b>	<b>Percent*</b>
<b>1</b>	<i>Yersinia enterocolitica</i>	100
<b>2</b>	<i>Haemophilus parainfluenzae</i>	100
<b>3</b>	<i>Bacteroides fragilis</i> <i>Moraxella catarrhalis</i>	100 100
<b>4</b>	<i>Pseudomonas aeruginosa</i>	100
<b>5</b>	<i>Neisseria gonorrhoeae</i>	100

\* Based on responses of 10 referee laboratories

## ***Specimen Number 1 - Stool (Pathogens Only)***

This simulated stool specimen contained *Yersinia enterocolitica*. This pathogen was identified correctly by 100% of the referee laboratories.

Of the participating laboratories that process stool cultures for *Yersinia*, 99% isolated this organism, with 95% of them reporting *Y. enterocolitica* / *Y. enterocolitica* group while 5% identified the isolate as *Yersinia* species.

*Enterobacter aerogenes* was included in this specimen as nonpathogenic flora.

### **Number 1 - Methods of identification used by laboratories reporting:**

#### ***Yersinia enterocolitica***

Siemens (Dade Behring) Negative Combo - any panel	57
bioMerieux API 20E	44
bioMerieux Vitek 2 GN	42
bioMerieux Vitek 1 GNI +	20
bioMerieux API Rapid 20E	8
BD Phoenix Gram Negative ID	4
Conventional biochemicals	3
BD BBL Crystal Enteric/Nonfermenter	2
Remel RapID ONE	1
Vitek 2 Compact BioMerieux	1
<b>TOTAL</b>	<b>182</b>

#### ***Yersinia enterocolitica* group**

bioMerieux Vitek 2 GN	2
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#### **Presumptive for *Yersinia enterocolitica***

BD BBL Crystal Enteric/Nonfermenter	1
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#### ***Yersinia* species**

bioMerieux Vitek 2 GN	4
Siemens (Dade Behring) Negative Combo - any panel	4
bioMerieux Vitek 1 GNI +	1
<b>TOTAL</b>	<b>9</b>

**No pathogens isolated** 1

**No *Salmonella*, *Shigella*, *Campylobacter* or *E. coli* O157:H7** 1

**Specimen source not tested** 9

**Total all responses** 205

Additional organisms reported:

*Enterobacter aerogenes*

bioMerieux Vitek 2 GN

2

No *Bifidobacterium* isolated

No growth on selective media for *Bifidobacterium*

1

No *Bifidobacterium sp.* isolated

Oxyrase MCA agar

1

## ***Specimen No. 2 – Cerebrospinal fluid (All Organisms)***

This simulated cerebrospinal fluid specimen contained *Haemophilus parainfluenzae*. This organism was identified correctly by all referee laboratories. Of the participating laboratories that processed this specimen, 96% correctly identified this pathogen with 99% of them reporting *H. parainfluenzae* and 1% reporting *Haemophilus* species.

Over 10% of laboratories reported an additional organism in this sample. Upon further investigation we found that the simulated cerebrospinal fluid specimen did not contain a pure isolate of *H. parainfluenzae*. Therefore, reports of an additional organism in this sample were not included in grading the test.

### **Number 2 - Methods of identification used by laboratories reporting:**

#### ***Haemophilus parainfluenzae***

Remel RapID NH	66
bioMerieux API NH	32
Siemens (Dade Behring) MicroScan HNID	23
Conventional biochemicals	20
bioMerieux Vitek 2 NH	16
bioMerieux Vitek 1 NHI	14
BD BBL Haemophilus ID Quad	4
Remel Haemophilus ID Quad Plate	2
BD BBL Crystal Neisseria/Haemophilus	1
Remel MicroID	1
bioMerieux Vitek 2 GN	1
Remel BactiCard Neisseria	1
16s rDNA sequencing	1
<b>TOTAL</b>	<b>182</b>

#### ***Haemophilus species***

Conventional biochemicals	1
Remel RapID NH	1
<b>TOTAL</b>	<b>2</b>

#### ***Haemophilus influenzae* biotype III**

Siemens (Dade Behring) MicroScan HNID	1
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#### ***Haemophilus influenzae***

Siemens (Dade Behring) MicroScan HNID	2
Conventional biochemicals	1
Remel RapID NH	1
BD BBL Crystal Neisseria/Haemophilus	1
<b>TOTAL</b>	<b>5</b>

#### ***Haemophilus parahaemolyticus***

Remel RapID NH	1
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<b>Specimen source not tested</b>	<b>14</b>
<b>Total all responses</b>	<b>205</b>
Additional organisms reported:	
<i>Staphylococcus intermedius</i>	
bioMerieux Vitek 1 GPI	1
<i>Streptococcus anginosus</i>	
Siemens (Dade Behring) Positive Combo - any panel	2
<i>Streptococcus mitis</i>	
Siemens (Dade Behring) Positive Combo - any panel	6
bioMerieux Vitek 1 GPI	1
BD Phoenix Gram Positive ID	1
<i>Streptococcus species</i>	
Conventional biochemicals	5
bioMerieux API 20 Strep	1
Alpha-hemolytic <i>streptococcus</i>	
Conventional biochemicals	2
bioMerieux Vitek 2 GP	1
Siemens (Dade Behring) Positive Combo - any panel	1
<i>Granulicatella adiacens</i> (Nutritionally Variant Streptococci )	
bioMerieux Vitek 2 GP	1
<i>Streptococcus mitis</i> group	
bioMerieux Vitek 2 GP	1
<i>Streptococcus viridans</i> group	
Conventional biochemicals	4
bioMerieux Vitek 2 GP	1

### ***Specimen No. 3 – Blood - Aerobic/Anaerobic (All Organisms)***

This simulated blood specimen was to be cultured both aerobically and anaerobically. It contained *Bacteroides fragilis* and *Moraxella catarrhalis*.

*Bacteroides fragilis* was identified by 100% of the referee laboratories. Of the participating laboratories that processed this specimen, 92.7% correctly identified this pathogen with approximately 94% of them reporting *B. fragilis* or *B. fragilis* group and 5% reporting *Bacteroides* species.

*Moraxella catarrhalis* was identified by 100% of the referee laboratories. Of the participating laboratories that processed this specimen 84.7% correctly identified this pathogen with approximately 95% of them reporting *M. catarrhalis* and 4% reporting *Moraxella* species.

#### **Number 3 (Anaerobe) - Methods of identification used by laboratories reporting:**

##### ***Bacteroides fragilis***

Remel RapID ANA II	89
bioMerieux API 20A	22
bioMerieux Vitek 2 ANC	16
bioMerieux Vitek 1 ANI	12
Siemens (Dade Behring) MicroScan Rapid Anaerobe	10
BD BBL Crystal Anaerobe	3
bioMerieux API Rapid ID 32A	2
Conventional biochemicals	2
Sanofi Diagnostics Pasteur Pastorex Staph	1
Growth in ANO2 but not in O2; API Rapid ID 32A	1
16s rDNA sequencing	1
Remel RapID ONE	1
<b>TOTAL</b>	<b>160</b>

##### ***Bacteroides fragilis* group**

Remel RapID ANA II	4
bioMerieux Vitek 1 ANI	2
Conventional biochemicals	1
<b>TOTAL</b>	<b>7</b>

##### ***Bacteroides* species**

Remel RapID ANA II	5
Siemens (Dade Behring) MicroScan Rapid Anaerobe	2
bioMerieux Vitek 1 ANI	1
bioMerieux API 20A	1
<b>TOTAL</b>	<b>9</b>

<b>Anaerobic gram-negative bacilli</b>	
Sent to Reference Laboratory for ID	1
Method not given	1
<b>TOTAL</b>	<b>2</b>
<b><i>Bacteroides caccae</i></b>	
Remel RapID ANAII	2
<b><i>Bacteroides ovatus</i></b>	
Siemens (Dade Behring) MicroScan Rapid Anaerobe	1
<b><i>Bacteroides thetaiotaomicron</i></b>	
Siemens (Dade Behring) MicroScan Rapid Anaerobe	1
<b><i>Clostridium perfringens</i></b>	
Siemens (Dade Behring) MicroScan Rapid Anaerobe	1
<b><i>Prevotella denticola</i></b>	
Remel RapID ANA II	1
<b><i>Prevotella species</i></b>	
Remel RapID ANA II	2
<b><i>Prevotella loescheii</i></b>	
Remel RapID ANA II	1
<b>Specimen source not tested</b>	<b>9</b>
<b>No anaerobe reported</b>	<b>5</b>
<b>Do not process anaerobes</b>	<b>4</b>
<b>Total all responses</b>	<b>205</b>

**Number 3 (Aerobe) - Methods of identification used by laboratories reporting:**

<b><i>Moraxella catarrhalis</i></b>	
Remel RapID NH	43
bioMerieux API NH	34
Conventional biochemicals	26
Siemens (Dade Behring) MicroScan HNID	17
bioMerieux Vitek 2 NH	16
bioMerieux Vitek 1 NHI	8
Remel Catarrhalis Disk	5

Remel BactiCard Neisseria	2
16s rDNA sequencing	2
bioMerieux Vitek 2 GN	1
bioMerieux Vitek 1 NHI & Conventional biochemicals	1
Biolog MicroLog Gram Negative	1
DNase plate & Remel Catarrhalis Disk	1
<b>TOTAL</b>	<b>157</b>
<b><i>Moraxella species</i></b>	
Remel RapID NH	2
bioMerieux Vitek 1 NHI	2
Remel BactiCard Neisseria	1
16s rDNA sequencing	1
Remel RapID NF Plus	1
<b>TOTAL</b>	<b>7</b>
<b>Gram-negative coccus</b>	
Conventional biochemicals	1
Method not given	1
<b>TOTAL</b>	<b>2</b>
<b><i>Moraxella atlantae</i></b>	
Conventional biochemicals	<b>1</b>
<b><i>Moraxella osloensis</i></b>	
Remel RapID NH	5
Conventional biochemicals	1
<b>TOTAL</b>	<b>6</b>
<b><i>Neisseria cinerea</i></b>	
Conventional biochemicals	<b>1</b>
<b><i>Neisseria flavescens</i></b>	
bioMerieux Vitek 1 NHI	<b>2</b>
<b><i>Neisseria meningitidis</i></b>	
Remel RapID NH	5
Siemens (Dade Behring) MicroScan HNID	4
BD BBL Crystal Neisseria/Haemophilus	2
<b>TOTAL</b>	<b>11</b>
<b><i>Neisseria species</i></b>	
Remel RapID NH	<b>2</b>

<b><i>Oligella urethralis</i></b>	
Conventional biochemicals	1
bioMerieux API 20NE	1
bioMerieux Vitek 1 NHI	1
<b>TOTAL</b>	<b>3</b>
<b>Unable to rule out <i>Brucella</i> species</b>	
Conventional biochemicals	1
<b><i>Neisseria</i> species, not <i>N. meningitidis</i></b>	
Conventional biochemicals	1
<b><i>Actinobacillus actinomycetemcomitans</i></b>	
Remel RapID NH	1
<b><i>Haemophilus actinomycetemcomitans</i></b>	
Remel RapID NH	1
<b>Specimen source not tested</b>	<b>9</b>
<b>Total all responses</b>	<b>205</b>
Additional organisms reported:	
<i>Kocuria varians</i>	
bioMerieux Vitek 2 GP	1
<i>Yersinia enterocolitica</i>	
bioMerieux Vitek 2 GN	1
<i>Staphylococcus</i> , coagulase negative	
bioMerieux Vitek 1 GPI	1
Conventional biochemicals	1

### ***Specimen No. 4 – Urine (Pathogens Only) and Antibiotic Susceptibility***

This simulated urine specimen contained *Pseudomonas aeruginosa*. This organism was correctly identified by all referee laboratories and by all participating laboratories that processed this sample.

Antimicrobial susceptibility testing was indicated for this specimen. This isolate of *P. aeruginosa* was susceptible to both imipenem and norfloxacin.

#### **Number 4 - Methods of identification used by laboratories reporting:**

##### ***Pseudomonas aeruginosa***

Siemens (Dade Behring) Negative Combo - any panel	78
bioMerieux Vitek 2 GN	55
bioMerieux Vitek 1 GNI +	29
Conventional biochemicals	14
bioMerieux API 20E	11
bioMerieux API 20NE	7
BD Phoenix Gram Negative ID	4
BD BBL Crystal Enteric/Nonfermenter	3
Polymerase chain reaction	1
Biolog MicroLog Gram Negative	1
Vitek 2 Compact Biomerieux	1
<b>TOTAL</b>	<b>204</b>
<b>Specimen source not tested</b>	<b>1</b>
<b>Total all responses</b>	<b>205</b>

## Results of Antimicrobial Susceptibility Testing

### *Pseudomonas aeruginosa* with Imipenem

<b>Result</b>	<b>Method (# labs)</b>	<b>MIC – ug/ml</b>	<b>Zone - mm</b>	<b># of Labs</b>	
Susceptible	Microscan (70)	≤4		45	
		<4		9	
		Not given		4	
		<1		4	
		≤1		4	
		2		3	
		≤2		1	
	bioMerieux Vitek 2 (49)	≤1		34	
		2		13	
		<1		2	
	bioMerieux Vitek 1 (27)	≤4		25	
		<4		2	
	E-test (5)	2		4	
		1.5		1	
	BD Phoenix (3)	2		2	
		Not given		1	
	Trek Sensititre (2)	2		2	
	Agar dilution (1)	≤4		1	
	Disk diffusion (23)			21	6
				22	6
				23	3
				24	2
				25	2
				20	2
				27	1
			26	1	
	Not given (2)				2
	Test not performed on antibiotic				18
	Test not performed on organism				2
	Test not performed on source				2
	Specimen source not tested				1
<b>Total all responses</b>				<b>205</b>	

*Pseudomonas aeruginosa* with Norfloxacin

<b>Result</b>	<b>Method (# labs)</b>	<b>MIC – ug/ml</b>	<b>Zone - mm</b>	<b># of Labs</b>	
Susceptible	Microscan (4)	≤4		4	
	bioMerieux Vitek 1 (1)	≤4		1	
	bioMerieux Vitek 2 (3)	1		3	
	Broth Microdilution (1)	1		1	
	Frozen In-House (1)	2		1	
	Disk diffusion (13)			25	4
				26	2
				24	2
				21	1
				27	1
				28	1
				29	1
		31	1		
Test not performed on antibiotic				159	
Test not performed on organism				13	
Test not performed on source				9	
Specimen source not tested				1	
<b>Total all responses</b>				<b>205</b>	

## ***Specimen No. 5 – Cervix (Pathogens Only)***

This simulated cervix culture contained *Neisseria gonorrhoeae*. This organism was correctly identified by all referee laboratories. Of the participating laboratories that processed this specimen, approximately 97% reported *Neisseria gonorrhoeae*.

*L. rhamnosus* and *S. epidermidis* were included in this specimen as nonpathogenic flora.

### **Number 5 - Methods of identification used by laboratories reporting:**

#### ***Neisseria gonorrhoeae***

Remel RapID NH	68
bioMerieux API NH	33
Siemens (Dade Behring) MicroScan HNID	25
bioMerieux Vitek 1 NHI	18
bioMerieux Vitek 2 NH	16
Conventional biochemicals	12
Remel BactiCard Neisseria	4
BD BBL Crystal Neisseria/Haemophilus	2
BD BBL Gonogen II	2
Phadebact Monoclonal GC	2
GenProbe Accuprobe	4
16s rDNA sequencing	1
Genprobe Pace 2	1
GenProbe Aptima	2
Vitek 2 Compact Biomerieux	1
<b>TOTAL</b>	<b>191</b>

**No growth** 1

**No pathogens isolated** 3

#### ***Staphylococcus, coagulase negative***

Fisher Healthcare SureVue Color Staph 1

**Gram-positive coccus** 1

**Specimen source not tested** 8

**Total all responses** 205

Additional organisms reported:

#### ***Lactobacillus* species**

Colony morphology and Gram stain 1

#### ***Gardnerella vaginalis***

Siemens (Dade Behring) MicroScan HNID 1

bioMerieux API Coryne 1

### ***Chlamydia – cervical swab for direct testing***

This simulated cervical swab was provided to laboratories that test for *Chlamydia* using direct detection methods. This sample contains non-viable organisms and is not suitable for laboratories performing *Chlamydia* culture. Currently, 104 out of 205 participating laboratories (50.7%) perform direct detection testing for *Chlamydia*.

This sample was positive for *Chlamydia* and was reported as such by 100% of the participating laboratories that tested this specimen.

#### **Test kits used by laboratories reporting this specimen as:**

##### **Positive for *Chlamydia trachomatis***

Gen-Probe Aptima Combo 2	33
Gen-Probe PACE 2 CT or CT/GC	30
BD ProbeTec ET CT or CT/GC	21
Roche Diagnostics COBAS AMPLICOR CT/NG	10
bioMerieux VIDAS	5
Digene Hybrid Capture hc2 CT/GC	1
Quidel QuickVue Chlamydia	1
Roche Diagnostics AMPLICOR CT/NG	1
BioRad Chlamydia Microplate EIA	1
Real-time PCR	1
<b>TOTAL</b>	<b>104</b>

## ***Direct Antigen Detection***

### **Specimen A – Source: Throat for Group A *Streptococcus***

This specimen was positive for Group A *Streptococcus*. Of the participating laboratories that processed this specimen, 98% reported it as positive.

#### **Test kits used by laboratories reporting this specimen as:**

##### **Positive for Group A *Streptococcus*:**

Genzyme OSOM Ultra Strep A	18
BD Directigen EZ Strep A	17
BioStar/Inverness Medical Acceava Strep A	15
Quidel QuickVue + Strep A	8
Abbott Signify Strep A Dipstick	5
Fisher Sure-Vue Strep A Lateral Flow Test	4
Fisher Sure-Vue SELECT Strep A	4
Quidel QuickVue Inline Strep A	3
Meridian Bioscience ImmunoCard STAT Strep A	3
GenProbe Group A Strep	3
Stanbio QuStick Strep A Rapid Strip Test	3
BD Chek Strep A	3
Quidel QuickVue Dipstick Strep A	2
BioStar Strep A OIA Max	2
Abbott Signify Strep A Cassette	2
Wampole Clearview Strep A Extract	2
Cardinal Health SP Brand Strep A Cassette	2
Remel PathoDx Strep A	2
Cardinal Health SP Brand Strep A Dipstick	2
Polymedco Poly Stat Strep A	1
Beckman Coulter Icon DS Strep A	1
Fisher Sure-Vue Signature Strep A Test	1
Clearview Strep A Exact II Cassette	1
BTNX Rapid Response	1
Sacks Medical Corp RefuAH Strep A	1
Beckman Coulter Icon SC Strep A	1
<b>TOTAL</b>	<b>107</b>

##### **Negative for Group A *Streptococcus*:**

Genzyme OSOM Ultra Strep A	1
Fisher Sure-Vue Signature Strep A Test	1

**Total all responses** **109**

**BACTERIAL IDENTIFICATION BY PARTICIPATING LABORATORIES**

<b>SPECIMEN NUMBER 1</b>	<u>Number</u> <u>Reported</u>	<u>%</u>
<i>Yersinia enterocolitica</i>	182	88.8
<i>Yersinia enterocolitica</i> group	2	1.0
Presumptive for <i>Yersinia enterocolitica</i>	1	0.5
<i>Yersinia</i> species	9	4.4
No pathogens isolated	1	0.5
No <i>Salmonella</i> , <i>Shigella</i> , <i>Campylobacter</i> or <i>E. coli</i> O157:H7	1	0.5
Specimen source not tested	9	4.4

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<b>SPECIMEN NUMBER 2</b>		
<i>Haemophilus parainfluenzae</i>	182	88.8
<i>Haemophilus</i> species	2	1.0
<i>Haemophilus influenzae</i> biotype III	1	0.5
<i>Haemophilus influenzae</i>	5	2.4
<i>Haemophilus parahaemolyticus</i>	1	0.5
Specimen source not tested	14	6.8

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**SPECIMEN NUMBER 3 – Anaerobic organism**

<i>Bacteroides fragilis</i>	160	78.0
<i>Bacteroides fragilis</i> group	7	3.4
<i>Bacteroides</i> species	9	4.4
Anaerobic gram-negative bacilli	2	1.0
<i>Bacteroides caccae</i>	2	1.0
<i>Bacteroides ovatus</i>	1	0.5
<i>Bacteroides thetaiotaomicron</i>	1	0.5
<i>Clostridium perfringens</i>	1	0.5
<i>Prevotella denticola</i>	1	0.5
<i>Prevotella</i> species	2	1.0
<i>Prevotella loescheii</i>	1	0.5
Specimen source not tested	9	4.4
No anaerobe reported	5	2.4
Do not process anaerobes	4	2.0

**SPECIMEN NUMBER 3 – Aerobic organism**

<i>Moraxella (Branhamella) catarrhalis</i>	157	76.6
<i>Moraxella</i> species	7	3.4

Gram-negative coccus	2	1.0
<i>Moraxella atlantae</i>	1	0.5
<i>Moraxella osloensis</i>	6	2.9
<i>Neisseria cinerea</i>	1	0.5
<i>Neisseria flavescens</i>	2	1.0
<i>Neisseria meningitidis</i>	11	5.4
<i>Neisseria</i> species	2	1.0
<i>Oligella urethralis</i>	3	1.5
<i>Haemophilus actinomycetemcomitans</i>	1	0.5
Unable to rule out <i>Brucella</i> species	1	0.5
<i>Neisseria</i> species, not <i>N. meningitidis</i> or <i>N. gonorrhoeae</i>	1	0.5
<i>Actinobacillus actinomycetemcomitans</i>	1	0.5
Specimen source not tested	9	4.4

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**SPECIMEN NUMBER 4**

<i>Pseudomonas aeruginosa</i>	204	99.5
Specimen source not tested	1	0.5

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**SPECIMEN NUMBER 5**

<i>Neisseria gonorrhoeae</i>	191	93.2
No growth	1	0.5
No pathogens isolated	3	1.5
<i>Staphylococcus</i> , coagulase negative	1	0.5
Gram-positive coccus	1	0.5
Specimen source not tested	8	3.9

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**CHLAMYDIA SPECIMEN**

Positive for <i>Chlamydia trachomatis</i>	104	100.0
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**DIRECT ANTIGEN SPECIMEN**

Positive for Group A <i>Streptococcus</i>	107	98.2
Negative for Group A <i>Streptococcus</i>	2	1.8